

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) An injector fluid pump for pushing a sample fluid along a sample fluid flow path of a sample fluid analysis device, the injector fluid pump comprising:

an initially closed integral injector fluid reservoir containing an aqueous injector fluid having a preselected electrolyte concentration;

an initially dry microporous injector fluid flow path having an injector fluid application end for accepting the injector fluid from the reservoir and an injector fluid effluent end for connecting to the sample fluid containing flow path of the sample fluid analysis device, the ~~fluid~~ injector fluid flow path automatically filling with the injector fluid up to the effluent end upon supply of the injector fluid to the application end;

a valve for opening the reservoir and selectively supplying the injector fluid from the reservoir to the application end;

an isolator for preventing passive injector fluid flow from the effluent end of the injector fluid flow path into the sample fluid flow path when the injector fluid flow path includes the injector fluid;

driving means for electro-osmotically pumping the injector fluid in the injector fluid path across the isolator to force the injector fluid into the sample fluid flow path, when the sample fluid flow path includes the sample, for advancing the sample fluid in the sample fluid flow path by hydraulically pushing the sample along the sample flow path with the injector fluid; and

a sealing element for sealing the injector fluid flow path along a perimeter thereof to prevent flow of the injector fluid from the injector fluid flow path at the perimeter during electro-osmotic pumping of the injector fluid.

2. (Previously Presented) The injector pump of claim 1, wherein the initially dry injector fluid flow path is made of a micro-porous material and wets up by capillary action when injector fluid is applied to the application end.

3. (Currently Amended) An injector fluid pump for pushing a sample fluid along a sample fluid flow path of a sample fluid analysis device, the injector fluid pump comprising:

an initially closed integral injector fluid reservoir containing ~~the~~ an aqueous injector fluid having a preselected electrolyte concentration;

an initially dry microporous injector fluid flow path having an injector fluid application end for accepting the injector fluid from the reservoir and an injector fluid effluent end for connecting to the sample fluid containing flow path of the sample fluid analysis device, the fluidic path automatically filling with the injector fluid up to the effluent end upon supply of the injector fluid to the application end;

a valve for opening the reservoir and selectively supplying the injector fluid from the reservoir to the application end;

an isolator for preventing passive injector fluid flow from the effluent end when the injector fluid flow path includes the injector fluid, wherein the isolator is an air gap;

driving means for electro-osmotically pumping injector fluid across the isolator to force the injector fluid into the sample fluid flow path, when the effluent end is connected to the sample fluid flow path, for advancing the sample fluid in the sample fluid flow path by pushing the sample with the injector fluid; and

a sealing element for sealing the injector fluid flow path along a perimeter thereof to prevent injector fluid flow from the injector fluid flow path at the perimeter during electro-osmotic pumping of the injector fluid.

4. (Previously Presented) The injector pump of claim 3, wherein the injector fluid flow path is made of a material having a surface charge and zeta potential.

5. (Previously Presented) The injector pump of claim 4, wherein the driving means is a pair of spaced apart first and second electrodes for applying an electrical potential to injector fluid in the injector fluid flow path.

6. (Previously Presented) The injector pump of claim 5, wherein the first electrode is in electric contact with the injector fluid in the injector fluid flow path at a first location and the second electrode is positioned at a second, spaced apart location for electrical contact with the injector fluid at the application end.

7. (Original) The injector pump of claim 6, further comprising means for electrically connecting the first and second electrodes to an electric control instrument for generating the electrical potential.
8. (Original) The injector pump of claim 7, wherein the means for electrically connecting is an electronic circuit board with contacts for electrically connecting to the control instrument and electric conductors for electrically connecting the contacts with the first and second electrodes.
9. (Original) The injector pump of claim 8, wherein the first and second electrodes are part of a flexible electrode module.
10. (Previously Presented) The injector pump of claim 2, wherein the injector fluid flow path contains an initially dry micro-porous material admixed with a dry reagent, the initially dry material being wettable by the injector fluid and the dry reagent being transportable along the micro-porous fluidic path by capillary flow when the initially dry material is wetted by the injector fluid.
11. (Previously Presented) The injector pump of claim 10, wherein the dry reagent is selected from the group of luminogenic, fluorogenic, electrogenic and chemoluminescent substrates and combinations thereof.
12. (Cancelled)
13. (Cancelled)
14. (Previously Presented) The injector pump of claim 6, wherein the first electrode is spaced from the effluent end to generate a field free region in the injector fluid flow path at the effluent end during electro-osmotic pumping.
15. (Previously Presented) The injector pump of claim 14, wherein the micro-porous injector fluid flow path contains an initially dry micro-porous material admixed with a reagent in the field free region, the initially dry material being wettable by the injector fluid and the

reagent being transportable towards the effluent end by capillary flow when the initially dry material is wetted by the the injector fluid.

16. (Previously Presented) The injector pump of claim 15, wherein the transportable reagent is selected from the group of luminogenic, fluorogenic, electrogenic and chemoluminescent substrates and combinations thereof.

17. (Previously Presented) The injector pump of claim 2, wherein the injector fluid reservoir is filled with injector fluid.

18. (Previously Presented) The injector pump of claim 17, wherein the integral reservoir is pressurized, and after connection to the injector fluid application end by the valve releases injector fluid to the application end of the injector fluid flow path.

19. (Previously Presented) The injector pump of claim 2, wherein the micro-porous injector fluid flow path has pores of less than 1 micrometers radius.

20. (Previously Presented) The injector pump of claim 2, wherein the micro-porous injector fluid flow path has pores of less than 0.2 micrometers radius.

21. (Previously Presented) The injector pump of claim 1, wherein the electro-osmotically pumped injector fluid has an electrolyte concentration of less than 10 millimolar

22. (Previously Presented) The injector pump of claim 1, wherein the injector fluid flow path is trapezoidal shaped with its fluid application end wider than its effluent end.

23. (Previously Presented) The injector pump of claim 1, wherein the flow conductance of the injector fluid-filled injector fluid flow path is at least 20 times less than the flow conductance of the fluid receiving device at its injector fluid receiving location.

24. (Previously Presented) The injector pump of claim 1, for supplying injector fluid to a vented air chamber included in the downstream device at the injector fluid receiving location.

25. (Previously Presented) The injector pump of claim 1, for supplying injector fluid to an enclosed air chamber included in the sample analysis device at the injector fluid receiving location.

26. (Previously Presented) The injector pump of claim 25, wherein the sample analysis device is a micro-porous lateral flow strip with an injector fluid receiving location along its length.

27. (Original) The device of claim 26, wherein the lateral flow strip has a sample application end and an effluent end.

28. (Original) The injector pump of claim 5, for operation with an electric potential of less than 100 volts.

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